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REGION VI
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Mr. Bill Honker
Chief, Groundwater Protection Section (6W-SG)
United States Environmental Protection Agency
Region VI
1201 Elm Street
Dallas, Texas 75270

Re: Letter of Clarification
UIC Program Application

Dear Mr. Honker:

This letter of clarification is in response to the final written comments the Texas UIC Program Submittal set out in your letter of March 12, 1982. t of the comments in your letter have been addressed by the letter of arification I sent you on March 10, 1982. There are two or three items on which you appear to need additional clarification regarding Texas' UIC procedures. I hope these will help the Region and headquarters' staffs in understanding the Commission's program.

1. Comments Pertaining to Marginal Wells

Sections 85.121 - 85.125 prohibit the Railroad Commission from restricting the production of marginal wells. These sections do not prevent the Railroad Commission from requiring that such wells be cased, cemented, and plugged on abandonment so as to prevent pollution. Secondly, these sections do not apply to injection wells, but only to producing wells. In any case, the rules and statutes administered by the Commission subject the operators to civil penalties of up to $1,000.00 per day, injunctive relief, and contempt fines for violation of Commission orders, regardless of whether pipeline severance can be used.

2. Comments Pertaining to Field Rules

The statement at page 5 of the Statewide Oil and Gas Rules concerning Field s was designed to inform operators that there may be other rules which would t their wells. The field rules were instituted to vary the density and pacing requirements for producing wells from that provided in Rule 37 of the Statewide Rules. The new field rules do not in fact contain provisions that affect the standards of the UIC program. To the extent that some of the older field rules set surface casing depths for a particular field, the Director of

UIC has the authority under the UIC rules to supersede those requirements. The Director has exercised that authority on numerous occasions and will in every instance supersede any such requirement so as to not deviate from the UIC program standards and so as to protect USDW. (See p.16 of the Program Description.)

3. Comments Pertaining to Fresh Water Aquifer and Aquifer Exemption Designation

Section 1421(d)(2) of the Safe Drinking Water Act reads as follows:

> Underground injection endangers drinking water sources if such injection may result in the presence in underground water which supplies or can reasonably be expected to supply any public water system of any contaminant, and if the presence of such contaminant may result in such system's not complying with any national primary drinking water regulation or may otherwise adversely affect the health of persons.

EPA and the states are charged with protecting underground sources of drinking water (USDW). In promulgating rules and regulations, EPA chose to create a bifurcated approach to this simple concept of protection of groundwater. First EPA chose to define USDW as water having a TDS of less than 10,000 ppm. In using a specific number, EPA felt it was necessary to provide for aquifer exemptions for various categories. It should be noted that th quifer exemption concept is part of the definition of USDW in the EP regulations, and is a part of EPA's attempt to clarify what is meant by USDW. Neither the 10,000 TDS limit nor the aquifer exemption concept are found in the statute, but rather both concepts are part of EPA's attempt to implement the statutory language cited above.

With the passage of Section 1425 of the Safe Drinking Water Act, both of these concepts became inapplicable to the Railroad Commission's program. Rather, the Railroad Commission must show that it has an effective program to protect USDW as required by the statute. The Railroad Commission feels that it has always had such a program, and recent amendments to the state statutes and rules will enhance this program.

The fifty-year old groundwater protection program in Texas has evolved over a long period of time and the state has been mapped and regulated in accordance with Texas' own unique regulatory program and regulatory language. The Program Description attempts to describe this program in the terms used by EPA. The Program Description states that the usable quality groundwater concept, in conjunction with the 250 feet of cumulative shale separation and casing and cementing requirements for isolation of the injection zone (Page 23 of Program Description)), effectively protect underground sources of drinking water. This program has been and will be effective in Texas.

In the Program Description, the Commission attempted to clarify how the existing state program matched the federal program, point for point. Unfortunately, the use of the EPA terms seems to have lead to the idea that the Railroad Commission must be exactly like the federal UIC program in its particular delineation of USDW and aquifer exemption. Again, it should be

pointed out that under amendments to the Safe Drinking Water Act, the concepts of EPA espoused in the regulations do not apply to the Class II program of the Railroad Commission.

However, Texas would like to be the first State to have its entire UIC gram approved. We are confident that approval will occur eventually, once the Railroad Commission's total program is completely evaluated. However, in an effort to expedite this process, the following comments are offered.

With regard to the aquifer exemption concept, there have been requests that the aquifers exempted as energy-producing be mapped and submitted to EPA, although this is in no way required by Federal law. The Program Description already commits the Railroad Commission to allowing injection for enhanced recovery purposes in formations where there is a productive well within one-half mile from the proposed injection well. The Commission reviews each application to assure that the proposed well is in such a productive zone. If such is the case, the permit will be granted provided that other freshwater zones are protected, regardless of the concentration of TDS in the injection zone. The quality of the water in the injection zone itself is irrelevant at this point. This is a much simpler statement that the EPA aquifer designation, aquifer exemption process, although the same level of protection is achieved.

In an effort to clarify in which areas the Commission will authorize injection provided other freshwater zones are protected, maps will be furnished to EPA of productive fields within the State of Texas. If the water in productive zones is 10,000 TDS or less (EPA aquifer designation), injection into [illegible]e productive zones will be authorized provided other zones are protected aquifer exemption). If the water is more than 10,000 TDS, injection may also be authorized since the water is of poor quality.

Since the State of Texas has been mapped on the basis of 3,000 TDS water rather than 10,000 TDS, overlays are not available so that EPA could compare the two maps and know exactly which of these productive zones is an "exempted aquifer". If the maps were available it would only help EPA distinguish between zones exempted as productive, and zones with water above 10,000 TDS. This distinction is of no value, since in neither case will the zone be treated as a drinking water source which must be protected.

The Commission will use these maps in conjunction with its records of new wells in order to determine whether a productive well is within one-half mile from the proposed injection well. Since no well may be produced without appropriate records being filed with the Commission, new productive wells may be ascertained by the UIC staff. Injection into such formations which contain a productive well within one-half mile from the proposed injection well, may be authorized by the Commission as described in the Program Description (In effect, the zone will be treated as an "exempted aquifer" since it will fall within the criteria set out in the Program Description on page 24).

4. Comments Pertaining to Protection of Underground Sources of Drinking Water

As stated on page 21 and 23 of the Program Description, the Railroad Commission intends to protect fresh water. This is intended to mean that the Railroad Commission's Program will protect all water with less than 10,000 total

dissolved solids concentration. This will be done by considering the casing, cementing, and geological factors delineated in the Program Description.

We trust that these further points of clarification will be satisfactory to allow Region VI to make a favorable decision.

Sincerely yours,

Glenn Jordan for

Jerry W. Mullican
Director of Underground
Injection Control

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